Nordic/Baltic Regional ESTH Hub e-Letter

Welcome to the latest e-Letter, our *unclassified* electronic publication sharing regional information, news and events. We encourage you to visit the websites of our Embassies throughout the Hub. Feel free to disseminate to your contacts. At the very end of the e-Letter you will find our featured story, offering background on the U.S. Implementation Plan for the Arctic Strategy.

Enjoy the read! Susan Delja Bo Gregersen

Denmark

Huge Melt Water Reservoir Found Under the Greenland Ice Sheet. The size of Ireland, the reservoir gives crucial new insight into the dynamics of the Greenland Ice Sheet. Also in Greenland,

a team of researchers from University of Washington and the German Space Agency found the *Jakobshavn* Glacier to be moving from the Greenland Ice Sheet and into the ocean at a record 10 miles per year. Jakobshavn is a colossal glacier believed to be responsible for calving the iceberg that sunk the Titanic. Read more here and here



Greenland's Parliament Ends 25-year Ban on

Uranium Mining. The 31-member parliament voted in favor, 15 to 14, to end the prohibition of mining for

radioactive materials. This move is a crucial step to develop Greenland's significant resources of uranium and rare earth metals. Read more here



Researchers warn of the spread of unwanted species to the Arctic. If for example the Red King Crab were to spread to Greenlandic waters, this could have catastrophic consequences for the fishing industry. The cold water has so far prevented the spread of species, but this may change soon. In addition, an expected increase in the

number of ships in the Arctic is likely to bring marine castaways that could establish themselves in the Arctic. Read more here

Danish biotech company Novozymes creates *BioAg* alliance with Monsanto. The stated aim of the alliance is to boost research and commercialization of microbial technology that can help

farmers increase output while protecting the environment. Monsanto and Novozymes will maintain independent research programs. Read more here

Estonia

General Electric Starts Its First Wind Energy Plant in Estonia. GE installed 18 turbines totaling 45 megawatts in northwestern Estonia. In 2011, Estonia became the first EU member to exceed its 2020 renewable energy target of 25 percent. Read more here and here

Finland

Health Data Transferred From Bracelet to Smartphone May Save Lives. Helsinki-based Innovamo has developed a service that helps convey critical medical information to paramedics and other helpers in an emergency situation. The service is currently targeted at persons for whom it is vital to have their medical information conveyed quickly, like for instance diabetics. Read more here



Intelligent Driving Expected to Increase - Finnish Companies Develop World's First Smart Car Service. Drivers may access the cloud-based service via a smart phone. Data services cover the driver, car, maintenance and driving. Tekes, the Finnish Funding Agency for Technology and Innovation, has funded the development of the service. Read more https://example.com/here/beat/

Fortum Builds World's First Bio-oil Plant in Finland. The plant will produce bio-oil from wood-based raw materials, the first of its kind in the world on an industrial scale. The bio-oil plant is integrated with one of Fortum's combined heat and power plants. The bio-oil can replace heavy and light fuel oil and in the future it may be used for various bio-chemicals. Read more here

Iceland

Foreign Minister of Iceland Meets EUR DAS Hartley at Arctic Frontiers

Conference. Foreign Minister Sveinsson met with EUR Deputy Assistant Secretary Hartley on January 21. Sveinsson revealed that the discussion had centered on mutual focuses in terms of Arctic affairs and bi-lateral relations. Minister Sveinsson finds that the United States is showing an increased interest in the Arctic and the concept of Iceland as a regional search and rescue hub is part of that interest. The Foreign Minister's speech at the conference can be read here



Iceland Issues Oil and Gas License. The third license

for oil and gas exploration in the Dreki area northeast of Iceland was granted to the partnership of China National Offshore Oil Company (CNOOC), Icelandic firm Eykon Energy and Noreay's Petoro Iceland AS. The other two licenses were granted in 2012. During the signing ceremony a group of 60 demonstrators from 12 environmental NGOs and related groups gathered outside the venue where the permit was formally issued, to protest against oil exploration in Iceland. Read more here

Iceland Continues to Issue 5-year Whaling Quotas. The Government of Iceland issued new five-year whaling quotas for fin whales (154 per year) and minke whales (229). Local and international environmental and conservation groups condemned the decision, while Department of Interior Secretary Sally Jewell expressed concern that "Iceland's whaling activities undermine worldwide efforts to conserve whales." In 2011, President Obama directed federal agencies to undertake a number of diplomatic actions to encourage Iceland to change its whaling policy. Read more here

Lithuania

StartupHighway Starts Partnership With UC Berkeley. The largest business accelerator in the Baltics, "Startup Highway" officially announced a new partnership with UC Berkley. The partnership will enable the best participants of the accelerator program to travel to the "promised land" of start-ups—Silicon Valley—and develop their business ideas at UC Berkeley's Skydeck incubator. Ambassador Deborah McCarthy (photo) participated in the event and said that "Innovation is alive and well in Lithuania. I am impressed by the many innovative



businesses and ideas emerging here in sectors like Infotech, biotech, solar, and lasers. Because our economies are intertwined, when innovators succeed in Lithuania they create jobs and opportunity for Lithuanians but also for Americans. Just as U.S. companies are increasingly interested in Lithuania, I want Lithuanian entrepreneurs to know that the United States is open for business and is a great place for innovative Lithuanian companies to invest and test new ideas and bring them to market." Read more here. For Ambassador McCarthy's remarks, click here.

First Two Lithuanian Satellites Launched Into Space: On January 9 the spacecraft 'Cygnus' launched, carrying two Lithuanian cube satellites. The year 2014 marks Lithuania's launch into the thermosphere, although the Lithuanian Space Association has been collaborating with NASA Ames for several years. Teams from Kaunas Technology University and the Space Sciences and Technology Institute in Vilnius University built the two satellites, which astronauts from the International Space Station will deploy into space in February. Read more here

EU Presidency Highlights: A Common EU Position Reached on Climate Change. On behalf of the EU, Lithuania spoke in favor of sustainable climate policy at COP 19 in Warsaw. After exhaustive negotiations, the EU delegation achieved the majority of its goals: an action plan was created for the period leading up to COP21 in Paris in 2015, and an agreement was reached that all countries will make clear, transparent, and comprehensive commitments to reduce climate change, even before the conference in Paris. Read more here and here

Major Technology Conferences in Vilnius. ICT 2013 - Create, Connect, Grow attracted more than 4000 European researchers, innovators, entrepreneurs, industry representatives, youth and politicians. Conference documents available here. The start-up conference Silicon Valley Comes to the Baltics occurred on November 9-10. Lithuania also hosted the Innovation Drift Forum. This international event was designed to create a high-level discussion platform about innovation, best practices and impact for European economy growth and well-being including the situation in various countries and regions. More information available here.

Norway

Embassy Oslo and Washington Representatives Show Strong Presence at Arctic Frontiers Conference. Centered around the theme of *Humans in the Arctic*, the 7th annual Arctic Frontiers Conference was highlighted by a keynote address from Prime Minister Solberg and featured strong participation from Embassy Oslo and Washington DC. Deputy Assistant Secretary Brent Hartley (photo) provided the U.S. perspective on the Arctic in the opening plenary of the Policy Section. US Coast Guard CAPT Jonathan Spaner moderated a panel discussion about increasing commerce in the northern passage, and was



interviewed by a Norwegian television station. In addition to two days of policy dialogues, the weeklong conference featured dozens of technical and scientific presentations on working conditions in the Arctic, health and environment, shipping and offshore, and search and rescue. Read more here

Statkraft Gives Up on Osmosis Power Generation Project. After four years and around USD 35 million, Norwegian state energy company Statkraft is shutting down the first experimental saltwater osmosis power plant due to poor market conditions. While the project wasn't a success in the end, project leader Stein Erik Skillhagen reports that Statkraft has learned much from the process of setting up the operation, but that bringing a new technology from idea to reality can be difficult. Statkraft is now turning the technology over to outside actors that may be able to take the technology further. The technology is also applicable to water purification. Read more here

Conference on Sustainable Mining in The High North. Sweden, Norway, Finland, and Denmark contributed to November's conference on Sustainable Mining in the High North. The two-day event was fifth in a series of High North development seminars hosted by the Swedish government in Oslo. The event opened with a keynote address from the President of the Nordic Sami Council, who made an appeal to participants to think carefully about how mining will impact indigenous livelihoods in the North. Day two of the conference included a presentation of each of the Nordic countries' new mining policies and a panel of mining industry representatives, including two of Norway's largest mining companies. Environmental NGOs Bellona and WWF also made presentations and provided counterpoints to the various panel discussions.

SINTEF: Restore Hydropower Plants to Ensure Stable Electricity in Europe. Massive investments are flowing into wind power projects all across Europe. Relying on intermittent energy sources may jeopardize security of supply and SINTEF is therefore looking into how Norwegian hydropower plants can contribute as a potential 'blue-green' battery for European wind power. The research is part of an EU research program called TWENTIES. Read more here

Russia

President Putin Reiterates Russia's Nuclear Plans to increase the percentage of nuclear electricity. Currently, Russia gets 16% of its electricity from nuclear energy. If successful, that percentage would increase to 25% by 2030. To achieve this ambitious goal, Russia would have to build 28 new nuclear units in the next 16 years. Putin added that Rosatom currently has contracts to construct 22 reactors abroad. Read more here

Russia Plans to Resume Its Lunar Exploration Program. Russia announced that the first stage of Russia's renewed lunar program is underway with plans for a second stage if the first spacecraft is successful. The first spacecraft will be launched in 2016; the second in 2018 to go into lunar orbit; and the third in 2019 to the moon's surface. The previous lunar exploration program ended in 1976. Read more here

Russian Oil Company Receives Largest Ever Fine for Pollution. A Russian court fined a subsidiary of Russia's largest private oil company \$18.5 million for a series of oil spills in 2011. According to Greenpeace, the fine, which took effect at the end of December, is the largest ever imposed in Russia for pollution. Read more here

Sweden

Swedish University Students
Reach Agreement on

Climate. Leading up to COP19 in



Poland, U.S. Ambassador to Sweden Mark Brzezinski joined Stockholm University Vice Chancellor Widding to open the 2013 Model COP Conference, a simulation of the United Nations Climate Negotiations. For two days, fifty-one students from 17 universities across Sweden assumed the roles of government representatives and managed to reach an agreement. The U.S. Embassy in Sweden sponsored the conference in cooperation with think tank FORES and Stockholm University. Read more here

Governments, Scientists, NGOs and Think Tanks Gather in the Swedish North to Discuss Arctic Changes. Ambassador Mark Brzezinski and the chair of the Fulbright Foreign Scholarship Board, Tom Healy, kicked off the two-day workshop titled "Shaping Arctic Change through Conscious Choices." The Fulbright Commissions in Iceland, Norway, Finland and Sweden participated in the workshop to hammer out how Fulbright can shed further light on Arctic challenges. Norway has instituted a Fulbright chair dedicated to Arctic issues. Read more here



U.S. Diplomats in Sweden Turn to Geothermal Heating. The Embassy is converting eight government owned properties to geothermal heating. Seven of these properties currently use electrical heat and one is heated by fuel oil. On average, the heat pump systems will save the U.S. government \$5,000-\$5,500 per house in electricity and fuel oil while also reducing greenhouse gas emissions. The embassy founded the League of Green Embassies in 2007. Today, the League is a global network of over ninety diplomatic missions formulating a common agenda

for energy efficiency, renewable energy and water conservation. Read more here

European Union

EU Climate Plan for 2030 Launched. The European Commission has launched its new framework on climate and energy for 2030. Reviews are highly diverging. Although *The Economist*

found the plans "worse than useless," UN Secretary-General Ban Ki-moon and former U.S. Vice President Al Gore were much more positive. Critics pointed out that current emission reduction plans have cost countries like Germany billions of dollars in subsidies while not using



the potential of simpler and much cheaper solutions. Supporters of the new plan found that it outlines smart ways to reduce emissions, while keeping energy prices low. Read more <u>here</u> and <u>here</u>

European Parliament Votes for Stronger Climate Targets. MEPs responded to the commission proposal with a call for binding 2030 targets on renewables, emissions and energy efficiency. Read more here

Carbon Capture and Storage Technology to be Relaunched. The EU Parliament has called for measures to relaunch development and application of carbon capture and storage (CCS) technologies as a way of reducing CO2 emissions from industry and electricity plants. In 2007, it was agreed that the EU should have up to 12 demonstration plants in operation by 2015. The Parliament deplored the fact that, so far, not one of these factories had been approved. Read more here and here

Europe's Energy Price Headache Becoming a Migraine – IEA. The International Energy Agency's chief economist Fatih Birol foresee that Europe's energy prices may stay up to three times higher than in the United States for the next 20 years. Concern among EU nations about the impact of energy costs on their already suffering industry is intensifying, with some member states debating a freeze on prices and stripping away renewable subsidies. Read more here

European Commission Proposes Monitoring of International Shipping Emissions. The proposed legislation will require owners of large ships using EU ports to monitor and report the ships' annual CO₂ emissions. The Commission also published a strategy on how to address and reduce emissions. Read more here

Flood risk in Europe: The Long-term Outlook. Floods in Central Europe have caused deaths and widespread property damage. Such events are likely to increase in Europe for several reasons including climate change, according to assessments from the European Environment Agency. Read more here

Herbicide Levels in Coastal Waters Drop After Ban. The European ban on atrazine has effectively reduced concentrations of the herbicide in coastal waters, a study found. However, the researchers also warned that, in some areas, atrazine levels remain relatively high as some countries have not yet restricted use of the chemical. Read more here

Gas Flaring, Residential Burning Pollute the Arctic More Than Previously Thought. A Norwegian-led study found that flaring and residential combustion are significant sources of soot pollution in the Arctic, but their role has been underestimated until now. The research indicates that flaring from oil and gas developments is the largest source of this pollutant, responsible for 42% of soot pollution in the Arctic. Read more here

United States

State of the Union Address. In his State of the Union address, President Obama was clear about climate change: "The dehate is settled. Climate change is a fact." For highlights on energy and climate change from the speech, click here and here. For the entire State of the Union address, click here

France and the U.S. Push For Global Climate Change

Pact. In an op-ed on the Renewed Alliance between France



and the U.S. President Obama and French President Hollande called for a binding global agreement to address carbon emissions, urging the rest of the world to get on board ahead of COP21, the climate conference to be held in Paris in 2015. Find the op-ed here

NOAA, NASA: 2013 Among the Warmest Years on Record. According to NOAA, 2013 was the fourth warmest year on record. Using slightly different methods, NASA ranked 2013 as the seventh warmest. Nine of the ten warmest years on record have occurred in the 21st century, with 2010 as the hottest. Read more here and here

U.S. DOE Floats USD 8 Billion Loan Plan for Low-Emission Oil, Coal Projects. The U.S. Energy Department laid out plans to offer up to USD 8 billion in loan assistance for fossil fuel projects that reduce greenhouse gas emissions, as the Obama administration pushes ahead to use its authority to address climate change. Read more here

USDA Launches Seven Climate Hubs to act as repositories of data and offer the practical, science-based tools and strategies farmers need to adapt and succeed in the face of a changing climate. Each Hub will focus on developing research and solutions tailored to the specific vulnerabilities of its region, such as drought-tolerant seed varieties, strategies to maintain soil health, and ways to monitor and respond to fires and pest outbreaks. Read more here

DOE Launches Public-Private Partnership on Making Transportation Sustainable. H₂USA is a partnership focused on advancing hydrogen infrastructure to support more transportation energy options for U.S. consumers, including fuel cell electric vehicles (FCEVs). Read more here

DOE, EU Co-launch the Electric Vehicle-Smart Grid Interoperability Center. The center, located at Argonne National Laboratory just outside of Chicago, will work to harmonize emerging EV and smart grid technologies. Read more here

U.S. Strengthens Energy Star Rules for Refrigerators. EPA Strengthens Energy Star Requirements and encourages "connected" features, including smart grid functionality. These

features would offer consumers more ways to reduce the energy consumption of their appliances, help lower their utility bills, and better protect the environment and the climate. Read more here



Bloomberg to Plug Mayors'
Climate Progress to Motivate
World Leaders. Former New
York Mayor Michael
Bloomberg aims to use his new
role as U.N. envoy on cities and
climate change to help
"frustrated" U.N. chief Ban Kimoon motivate world leaders to
cut greenhouse gas emissions
by showing them progress
made by large cities. Read more
here

NASA's Polar Robotic Ranger Passes First

Greenland Test. NASA's new polar rover demonstrated that it can operate completely autonomously in some of Earth's harshest environments. Read more here

Florida Company Produces Commercial Quantities of Ethanol From Wood Waste. The fuel is produced at the INEOS Bio s USD 130m BioEnergy Center in Florida. The waste is cooked into a gas of carbon monoxide and hydrogen. Bacteria eat the gas and excrete alcohol, which is then distilled. Read more here and here

Featured Story: White House Releases Implementation Plan for the Arctic Strategy.

The Administration solicited input from Alaska Natives, the State of Alaska, Congress, academia,

industry and others to develop an Implementation Plan that sets forth the guidelines for Federal Departments and Agencies to execute the National Strategy for the Arctic Region. The Implementation Plan complements and builds upon existing initiatives by Federal, State, local, and tribal



authorities, the private sector, and international partners, and also focuses efforts where opportunities exist and action is most needed. It is designed to meet the reality of a changing Arctic environment and uphold American interests in safety and security, protect the environment, and work with international partners to pursue the global objective of combating the effects of climate change as described in the President's Climate Action Plan.

While the Implementation Plan is designed to guide the activities of Federal Departments and Agencies, successful implementation will depend upon active engagement and coordination with Alaska Natives and the State of Alaska. The Implementation Plan will be reviewed on an annual basis to ensure that progress continues to be made in positioning the United States to best prepare and respond to changes, challenges, and opportunities in the Arctic region. Progress on implementation actions by Federal Departments and Agencies will be provided through an annual report to the President.

The lines of effort of the Strategy and the Implementation Plan are as follows:

- Advance United States Security Interests
- Pursue Responsible Arctic Region Stewardship
- Strengthen International Cooperation

These lines of effort and guiding principles are meant to be implemented as a coherent whole.

Find the Implementation Plan here